

Atty. Docket No.	02481.1743		Application No.	09/835,37	l	
pplicant	E. Uhlmann et al.					
Filing Date	April 17, 2001	· · · · · · · · · · · · · · · · · · ·	Group Art Unit:	1645		
		U.S. PATEN	T DOCUMENTS			
Examiner Initial*	Document Number	Issue Date	Name	Class	Sub Class	Filing Date
S	5,874,553	02/1999	Peyman et al.			
	 		<u> </u>			
			1			
		FOREIGN PAT	ENT DOCUMENT	rs		
	Document Number	Publication Date	Country	Class .	Sub Class	Translation Yes or No
AS	WO 99/37670	07/1999	PCT		1	
0/	WO 99/33867	07/1999	PCT			Yes (Abstract only)
	WO 96/11205	04/1996	PCT		ſ	
	DE 196 40 974	04/1998	Germany	_	_	Yes (CA 2,217,377)
	DE 195 08 923	09/1996	Germany		1	Yes (US 5,874,553)
	EP 0 672 677	09/1995	EP		_	Yes (CA 2,144,475)
	CA 2,217,377	04/1998	Canada			
S	CA 2,144,475	09/1995	Canada	_		
	OTHER DOCUM	1ENTS (Including A	Author, Title, Date,	Pertinent Pa	iges, Etc.)	
*						
-			·		 	_ _
						···

Examiner	Jellowhing	Date Considered	2/01/05
*Examiner:	Initial if reference considered	, whether or not citation is in conforma and not considered. Include copy of t	ance with MPEP 609; draw line through this form with next communication to
Form PTO 14	49	Patent and Trademark	Office - U.S. Department of Commerce

Atty. Docket No.: 02481.1743			Application No.: 09/835,371				
Applicant: E. UHLMA	NN et al.						
Filing Date: April 17,	, 2001		Group Art Unit: Not \	et Assigned			
		U.S. PATENT	r documents				
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date If Appropriate	
	FO	REIGN PATE	ENT DOCUMENTS				
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No	
Jz.	WO 92/20702	11/1992	PCT		_		
<u>g</u> s	Nielsen et al., "	Sequence-Sele	author, Title, Date, Pertin ective Recognition of DN de", Science 254:1497-15	A by Strand	Displacer		
			es to Complementary Olics", Nature 365(6446):56				
			ic Acid (PNA). A DNA I January/February 1994.	Mimic with	a Peptide	Backbone",	
			etic Polyamide Nucleic A t. Ed. 37(20):2796-2823,			nding	
		eir Binding A	e Type of Junction in DN ffinity to DNA and RNA				
*	Nielsen et al., " Press, pps. 2-3		ic Acids - Protocols and A	Applications	", Horizoi	n Scientific	
	Uhlmann et al., Reviews 90(4):5		igonucleotides: A New 1990.	Therapeutic	Principle"	, Chemical	
&s'	Larsen et al., "A 1489(1):159-16	•	erties of Peptide Nucleic 0, 1999.	Acid", Bioc	him. Biop	hys. Acta	
Examiner Jef	fy been		Date Considered	11/05			
	not in conformance an		citation is in conformance ed. Include copy of this				
Form PTO 1449		d Trademark (Office - U.S	S. Departmen	nt of Com	merce	

Atty. Docket No.: 02481.1743			Application No.: 09/835,371					
Applicant: E. UHLMA	.NN et al.		<u> </u>					
Filing Date: April 17,	2001	* :	Group Art Unit: Not Y	et Assigned				
								
] 	ט	.S. PATENT	DOCUMENTS					
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date If Appropriate		
			·	1				
	FOR	EIGN PATE	NT DOCUMENTS					
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No		
			-					
(OTHER DOCUMENTS	(Including A	uthor, Title, Date, Pertine	nt Pages, E	tc.)			
S	Praseuth et al., "Triple Helix Formation and the Antigene Strategy for Sequence-Specific Control of Gene Expression", Biochem. Biophys. Acta 1489(1):181-206, December 10, 1999.							
	Hybrids Mimicki	Mischiati et al., "Interaction of the Human NF-κβ p52 Transcription Factor with DNA-PNA Hybrids Mimicking the NF-κβ Binding Sites of the Human Immunodeficiency Virus Type 1 Promoter", J. Biol. Chem. 274(46):33114-33122, November 12, 1999.						
		Cole-Strauss et al., "Correction of the Mutation Responsible for Sickle Cell Anemia by an RNA-DNA Oligonucleotide", Science 273:1386-1389, September 6, 1996.						
	Ørum et al., "Lab pps. 81-86, 1999.		", Peptide Nucleic Acids	Protocols	and Appli	cations,		
	Lohse et al., "Fluorescein-Conjugated Lysine Monomers for Solid Phase Synthesis of Fluorescent Peptides and PNA Oligomers", Bioconjugate Chem. 8(4):503-509, July/August 1997.							
·	Witting et al., "P 365(1):27-29, Ma		Membrane Permeability o	f Peptide N	ucleic Aci	d", FEBS Lett.		
	Koch et al., "PN/ 1995.	A-Peptide Chi	merae", Tetrahedron Let	t. 36 (38):69	33-6936,	September 18,		
SS	Egholm et al., "Peptide Nucleic Acids (PNA): Oligonucleotide Analogues with an Achiral Peptide Backbone", J. Am. Chem. Soc. 114(5):1895-1897, February 26, 1992.							
Examiner Je	fysum		Date Considered	5				
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Form PTO 1449

Atty. Docket No.: 02481.1743			Application No.: 09/835,371				
Applicant: E. UHLMAN	N et al.			'			
Filing Date: April 17, 20	001		Group Art Unit: Not Yet Assigned				
	U	J.S. PATENT	DOCUMENTS				
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date If Appropriate	
					L		
	FOR	EIGN PATE	NT DOCUMENTS				
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No	
		L				<u></u>	
O'	THER DOCUMENTS	(Including A	uthor, Title, Date, Pertiner	nt Pages, Et	tc.)		
85	Nielsen et al:, Ap Scientific Press,		tide Nucleic <u>Acids - Proto</u> , 1999.	cols and A	pplication	s", Horizon	
	Falkiewicz, B., "l Polonica 46(3):5		cic Acids and Their Struct	ural Modifi	cations",	Acta Biochim.	
		Sosnowski et al., "Rapid Determination of Single Base Mismatch Mutations in DNA Hybrids by Direct Electric Field Control", <i>Proc. Natl. Acad. Sci. USA</i> 94(4):1119-1123, February 1997.					
			luorescence Energy Trans Analytical Biochemistry 2				
			Distribution of Digoxigeni Enzymology 313:257-268		Phosphoro	othioate	
			otein Rather than its RNA Jucleic Acids Research 27				
			er of Gene and Oligodeon id", Gene Therapy 3(10):8				
85	Just et al., "Flow Cytometric Detection of EBV (EBER snRNA) Using Peptide Nucleic Acid Probes", Journal of Virological Methods 73(2)163-174, August 1998.					de Nucleic Acid	
U							
Examiner Sh	Blu		Date Considered	145			
			itation is in conformance ed. Include copy of this fo				

Form PTO 1449

Patent and Trademark Office

U.S. Department of Commerce

Atty. Docket No.: 02481.1743 "			Application No.: 09/835,371				
Applicant: E. UHLMAN	NN et al.						
Filing Date: April 17, 20	001		Group Art Unit: Not	Yet Assigned			
	U	.S. PATENT I	OOCUMENTS				
Examiner Initial*	Document Number Date Name Class Sub Class						
	FOR	EIGN PATEN	T DOCUMENTS				
	Document Number	Date	Country	Class	Sub Class	Translation Yes or No	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Strother et al., "Synthesis and Characterization of DNA-Modified Silicon (111) Surfaces", J. Am. Chem. 122(6)1205-1209, February 16, 2000.							
	March/April 199 Wang et al., "Per	Pirrung, M., "Spatially Addressable Combinatorial Libraries", Chem. Rev. 97(2):473-488, March/April 1997. Wang et al., "Peptide Nucleic Acid Probes for Sequence-Specific DNA Biosensors", J. Am. Chem. Soc. 118(33):7667-7670, August 21, 1996.					
	Will et al., "The Protecting-Group	Synthesis of Po	olyamide Nucleic Acid rahedron 51(44):1206	s Using a No 9-12082, Oc	vel Mono tober 30,	methoxytrityl 1995.	
	Breipohl et al., "' Molecules", Tetr	Novel Syntheti ahedron 53(43	c Routes to PNA Mon):14671-14686, Octob	omers and Pler 27, 1997.	NA-DNA	Linker	
	Sonveaux, E., "The Organic Chemistry Underlying DNA Synthesis", Bioorganic Chemistry 14(3):274-325, September 1986.						
	Beaucage et al., 'Derivatives", Tel	"The Functions trahedron 49(1	alization of Oligonucle 0):1925-1963, March	otides Via Pl 5, 1993.	nosphoran	nidite	
JS.	Ravin, L., "Prefo Company, Eastor		mington's Pharmaceu 19-1423, 1985.	itical Science	s, Mack P	ublishing	
Examiner	effor bu		Date Considered	1/05	<u> </u>		
*Examiner: Initial if re citation if applicant.	ference considered, who not in conformance and	ether or not cit I not considere	tation is in conformand d. Include copy of thi	s form with n	P 609; dra ext comm	w line through nunication to	
Form PTO 1449	Patent and	i Trademark O	ffice - U	.S. Departme	nt of Con	merce	

Atty. Docket No.: 02481.1743		Application No.: 09/835,371				
Applicant: E. UHLMAN	NN et al.					
Filing Date: April 17, 2001			Group Art Unit: Not Yet Assigned			
	u	J.S. PATENT	DOCUMENTS			
Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date If Appropriate
	FOF	EIGN PATE	NT DOCUMENTS			, , , , , , , , , , , , , , , , , , ,
	Document Number	Date	Country Class Class			
<u></u> 85 ·	Li et al., "Molec	ular Beacons:	uthor, Title, Date, Pertin A Novel Approach to 1 049-1052, March 17, 20	Detect Proteir		teractions",
			tion of DNA-RNA Hyb 11543, September 29, 1		Living Ce	lls", Proc. Nati
	Niemeyer et al.,	"DNA Micros	arrays", Angew. Chem. I	Int. Ed. 38(19)2865-28	59, 1999.
3 8	Weiner et al., "L 15(10):1523-155		Drug Delivery System'	', Drug Deve	lop. and I	nd. Pharm.
. ÷						
						
Examiner (Jeffby Sur	······	Date Considered	3/1/05		
*Examiner: Initial if re citation if applicant.	ference considered, who in conformance and	nether or not o	citation is in conformanced. Include copy of this	ce with MPEI s form with n	ext comm	w line through unication to

Form PTO 1449

Patent and Trademark Office

U.S. Department of Commerce